

IN THE UNITED STATES PATENT
AND TRADEMARK OFFICE

In re application of: GARSTENAUER et al.
Attorney Docket No.: TRG-300

J1046 U.S. PTO
10/02/00
12/11/01

Title: Variable Hydraulic Valve Drive

Serial No.: N/A

Art Unit: N/A

Filed: December 11, 2001

Examiner: N/A

Box Patent Application
Assistant Commissioner for Patents
Washington, D.C. 20231

INFORMATION DISCLOSURE STATEMENT

Sir:

In compliance with the duty of disclosure under 37 C.F.R. §§ 1.56 and pursuant to 37 C.F.R. §§ 1.97 and 1.98, it is respectfully requested that this Information Disclosure Statement be entered and the documents listed on the attached form PTO-1449 be considered by the Examiner and made of record. It is believed that no fee is due at the present time as this statement is being filed under 37 C.F.R. § 1.97(b). However, should any fee be missing or insufficient, authorization is hereby given to charge said fee (or credit any overpayment) to deposit account number 12-2147.

Filed herewith are copies of the references listed on form PTO-1449. In compliance with 37 C.F.R. § 1.98(a)(3)(i) the following abstracts/explanations are provided for the three German references, which are not in the English language.

DE 40 02 856 A1 discloses a variable hydraulic drive for a valve in particular of an internal combustion engine. The valve is closed with the help of a spring. The hydraulic control mechanism, which is used for opening the valve, comprises a mechanism for recovery of energy by storing hydraulic fluid under pressure in a storage means. The stored hydraulic fluid can only be reused for driving the valve if the pressure in the storage means has reached a certain level.

DE 39 35 218 A1 discloses a hydraulic valve drive wherein the shaft of the valve comprises a piston, which is 1.4 times thicker than the shaft. The shaft and the piston work together as a differential piston. The lower end of this differential piston is permanently pressurized with the help of a pump whereby the upper end is pressurized through a turnable closing mechanism. The valve is able to suck oil during its movement through a conduit, which is protected by a non-return valve. This enables the whole system to save energy.

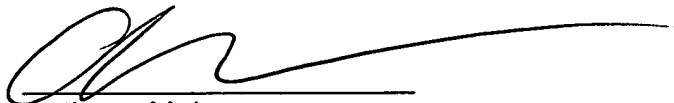
DE 198 26 047 A1 discloses means for controlling a gas exchange valve for an internal combustion engine with an axially moveable valve shaft, which comprises a ceiling surface towards the combustion chamber. On the other side of the shaft of the valve a piston is arranged, which separates the two hydraulic working rooms of a cylinder, which are pressurized for opening or closing the valve. The lower working

room is permanently connected to a high pressure source. The upper working room is connected to a conduit with highly pressurized fluid whereby the conduit is controlled by a control valve. The pressure storage means is used to guarantee a certain pressure level and to flatten the working pressure level.

While this statement contains all of the relevant information presently known to the Applicants, it should not be interpreted as a representation that an exhaustive search has been conducted or that no other relevant information exists. Moreover, the Applicants invite the Examiner to make an independent evaluation of the cited reference to determine their relevance to the subject matter of the present application.

Finally, the Applicants urge that their claims are patentably distinguishable over all disclosed relevant information or any combination thereof.

Respectfully Submitted,
Lorusso & Loud



Anthony M. Lorusso
Reg. No. 25,059

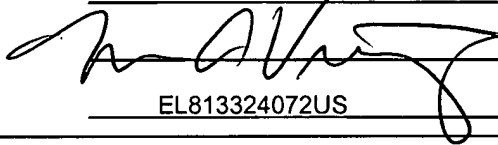
Dated: December 11, 2001

Lorusso & Loud
440 Commercial Street
Boston, MA 02109
Tel: 617-227-0700
Fax: 617-723-4609

CERTIFICATE OF MAILING BY "EXPRESS MAIL" (37 CFR 1.10)

I hereby certify that this Information Disclosure Statement along with any papers, documents or attachments referred to therein as being attached or enclosed, is being deposited with the United States Postal Service "Express Mail Post Office to Addressee" service under 37 CFR 1.10 in an envelope addressed to: Assistant Commissioner for Patents, Box Patent Application, 2900 Crystal Drive, Arlington, VA 22202-3513 on December 11, 2001.

Marc A. Vivenzio

A handwritten signature in black ink, appearing to read 'M. Vivenzio', is written over a horizontal line.

EL813324072US